Behavior and Training

Thank you for starting the behavior and training portion of the BBB. Pay close attention to sentences in **red, bold text**, as these questions will appear on the test!

Vocabulary

- First let's review some words commonly used in animal training! We'll start with the *quadrants of operant conditioning*, and a few other key words and phrases.
- **Positive Reinforcement** (R+): Adding something after a behavior to make it more likely to occur; the behavior increases in order to attain a desirable outcome.
- **Negative Reinforcement** (R-): Removing an aversive stimulus after a behavior to make it more likely to occur- the behavior increases in order to avoid or escape the aversive stimulus.
- **Positive Punishment** (P+): Adding an aversive after a behavior to make it less likely to occur. The behavior decreases in order to avoid or escape the aversive stimulus.
- **Negative Punishment** (P-): Removing a positive reinforcer after a behavior to make it less likely to occur- the behavior decreases to avoid losing access to positive reinforcers.

Operant Conditioning Examples:

Positive Reinforcement (R+): Justice's bird Snickers says "hello"; Justice gives him his favorite treat, an almond, to increase the likelihood he'll say it again in the future

Desired Behavior

Hello!

Reinforcer

Operant Conditioning Examples:

Negative Reinforcement (R-): Justice asks Snickers to step up by pressing her hand into his abdomen; to get away from the uncomfortable pressure, he steps up on to her hand. Justice hopes this will increase the probability of Snickers performing the step up behavior in the future

Desired Behavior

Reinforcer

Remove pressure of hand on chest

Operant Conditioning Examples:

Positive Punishment (P+): Justice's bird Jimmy bites her; Justice sprays him with water, in hopes to decrease the likelihood of future bites

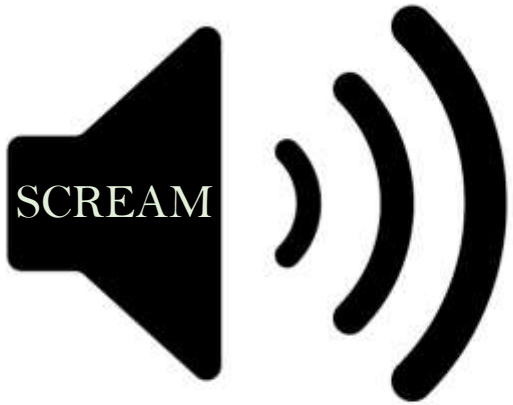
Undesired Behavior

Punishment

Operant Conditioning Examples:

Negative Punishment (P-): Jimmy vocalizes in a way that is undesirable; Justice leaves the room, hoping that if Jimmy associates vocalizing with the consequence of her leaving, he'll be less likely to do it in the future

Undesired Behavior



Punishment

More on Punishment

- The frequent use of punishment can exacerbate behavior issues; positive punishment has been linked to increased aggression, reduction of activity, over generalized aversion, and avoidance behaviors; positive reinforcement has not.
- The use of methods including but not limited to: squirting a bird with water to punish them, dropping birds, pulling out feathers, notching beaks, toweling birds in to submission, yelling, hitting/kicking/shaking cages, forcefully grabbing birds by their legs, corralling / shoving hands against birds to force them to step up, and other methods involving force and coercion put our birds, our staff, and our patrons at risk, and will absolutely not be tolerated.

Vocabulary (cont.)

- **Bridging Stimulus**: A stimulus that "bridges" the gap between behavior and reinforcement, to communicate to the learner that reinforcement is coming. Clickers and whistles are commonly used. It is important that the bridge comes immediately *after* the desired behavior, and *before* reinforcement is delivered.
- **Time Out**: Briefly removing reinforcement when an unwanted behavior is offered; must be done *immediately* after the behavior, and should last no more than 30 seconds.
- **Labeling**: Assigning an unobservable construct to behavior. *Mean*, *vicious*, *angry*, *hormonal*, *independent*, *loving*, are all examples of labeling. Labels make it more difficult to understand behavior, because they don't tell us what behaviors an animal is actually doing.
- **Extinction:** Discontinuing all reinforcement of a previously reinforced behavior.
- **Differential Reinforcement:** Reinforcing alternative behavior and applying extinction to unwanted behavior.

Behavior Myths and Misconceptions

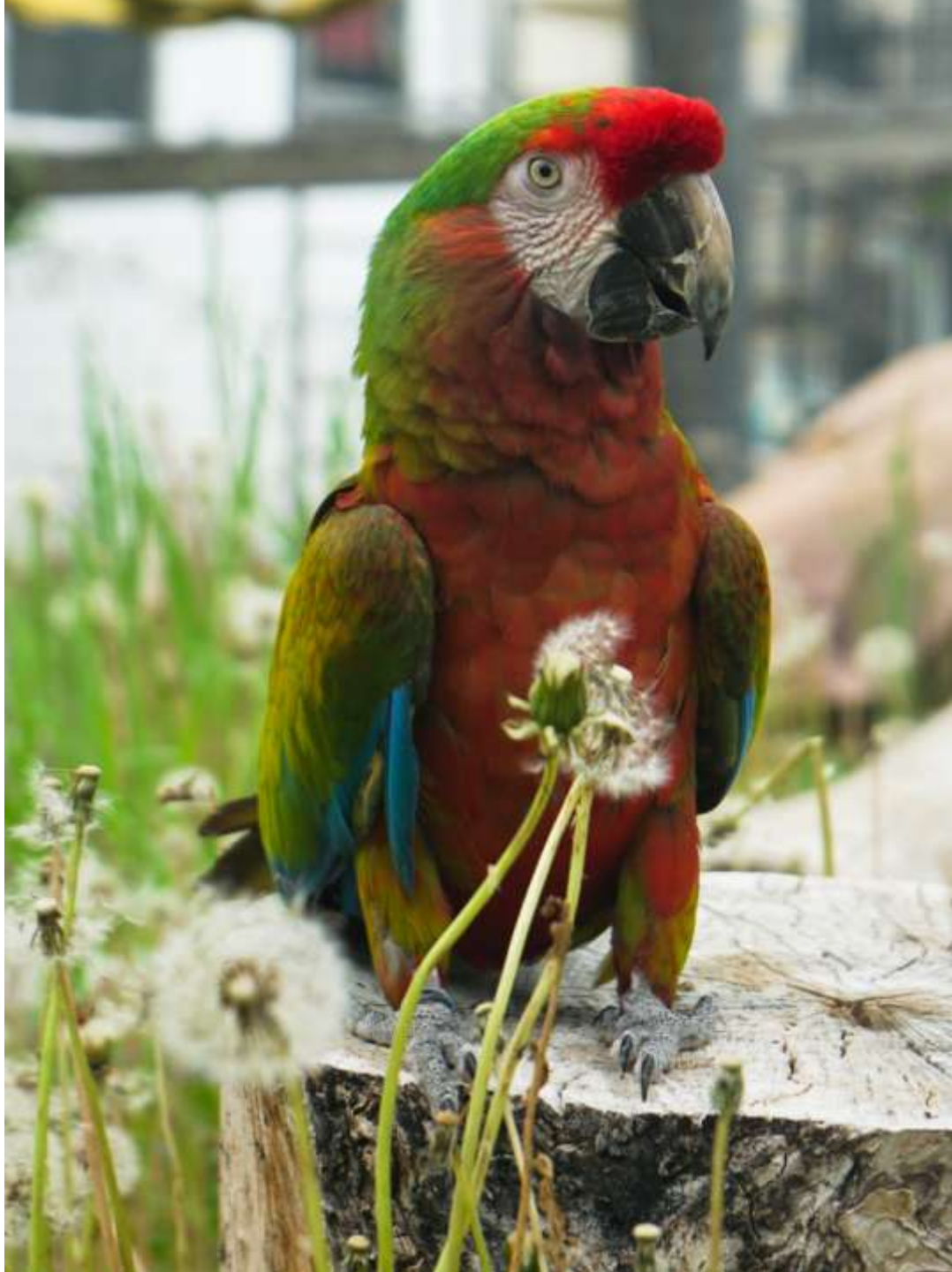
Myth: Birds will attempt to dominate you, using height and biting to assert that they're higher up than you in a fixed hierarchy.

Reality: While some parrots may squabble over specific resources, there is no evidence to support the idea that parrots have fixed, static hierarchies in captivity or in the wild.

A bird may prefer being up on a high perch as it offers a better vantage point and safety, but this doesn't indicate the parrot is trying to "dominate" us.

When a bird is perched up high, we need to be sure we are offering a stable perch/hand to step up on to, and reinforce the step up behavior when it occurs- often when we offer a hand to bird up high, it's angled, and not safe to step up on to, which may lead to preventable bites.

Click here for more info on dominance!



Behavior Myths and Misconceptions

Myth: If a parrot bites you, you need to take the bite, and do nothing to change your behavior so you don't reinforce it.

Reality: Bites are a form of communication; if you receive a bite, withdraw your hand away from the bird, take a step back, and think about body language signals you may have missed, and what you can do to avoid bites in the future.

"Taking the bite" without assessing what caused it, and changing your own behavior accordingly, may lead to increased intensity and strength of bites as the bird learns that this is the only effective way to communicate with you.

To read more on "taking the bite", click here

Behavior Myths and Misconceptions

Myth: Your parrot needs to fly freely outdoors in order to get proper exercise and enrichment.

Reality: Birds develop their flight skills when they fledge; this is also the period that many breeders begin clipping wings, and so they don't learn to fly quite as nature intended.

While these birds are often still able to fly in some capacity, they don't typically have the flight skill and muscle necessary for longer distances, descending/landing, or negotiating steep angles, which can make free flight dangerous. More on free flight on the next slides!

More on Free Flight

- The training process for free flight is *extremely* rigorous, even with a bird who has the muscle and skill for long distance flight. The recall cue has to be well generalized to a multitude of environments and stimuli, and even then, the outdoors is unpredictable- we can't train for every single possibility.
- There are also man made and environmental hazards to consider; car and window strikes are common even in wild birds, and some species of native birds are known to hunt, "mob" or swoop around and chase off free flown parrots.
- Falconers, the original free flight experts, often use telemetry to track their birds in the event of a fly off; there aren't many tracking options designed to suit parrots long term, so it can be difficult to track a parrot that is lost, flies off, or is chased off.
- To read more on free flight, click here

So How Do I Exercise My Bird?

- If your bird can fly, we recommend teaching a recall behavior for use **indoors**, and in an outdoor flight cage; you can still get the benefits of flight, while minimizing the risk of losing your bird to a car, raptor, or window!
- There are also options for harness training, and adding bird furniture like play stands and hanging perches to your home to accommodate and encourage flight indoors.
- For birds who cannot fly activities like walking and climbing can offer the same of amount of exercise as short flights from one spot to another. Do not try to make your bird flap their wings by repeatedly dropping your arm or perch.
- **Speak to your adoption counselors to get an idea of what options would be best for you and your bird; every bird, and every adopter, is a study of one!**

Hormones and Behavior

It's very common to see people write off bites as hormonal behavior. "Hormonal" is a label, or construct, not a behavior, and many "hormonal" bites are preventable.

Hormone production periods should only last a few weeks, and behavior may become more volatile *temporarily*. If you're being repeatedly bitten for a prolonged amount of time, it may be more helpful to look at what happens right before and right after the behavior, rather than attribute it to hormones and make no changes!

There are many things that can prompt reproduction periods; providing cavities that can resemble nesting sites, offering nesting materials, and inappropriate petting are all common culprits.

To read more on reproductive periods, click here

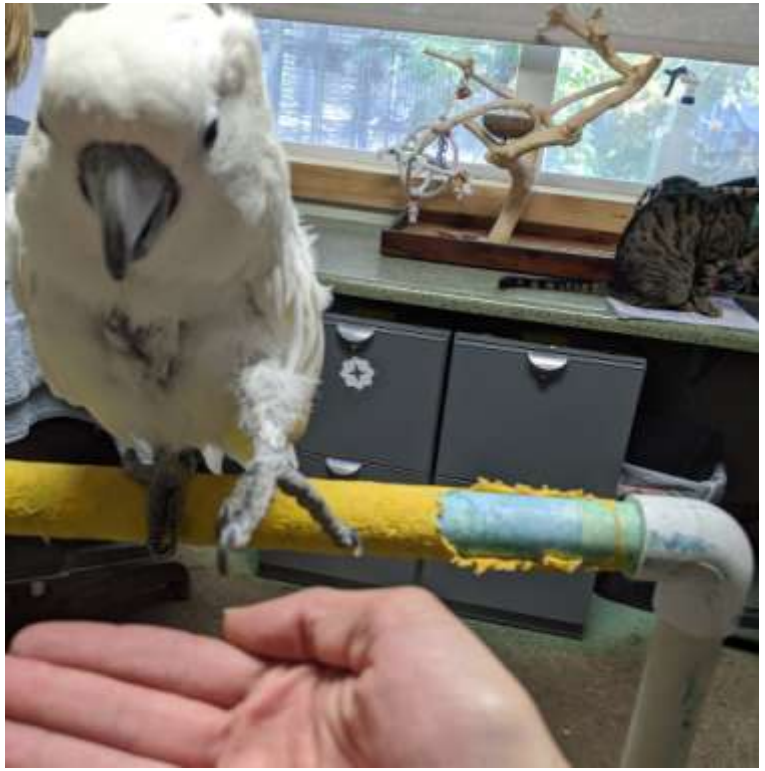
Body language

What does it look like when a parrot wants to be closer and interact with you more?

- Many birds will lift their foot to initiate a step up, many will bow their heads to solicit head scratches, some will take the initiative and move closer to you on their own terms.
- Looking at a bird's feathers can also help clue us in; relaxed, loose feathers and preening can signal that a bird is more comfortable.

The following slides show some examples of birds who would like to engage!

- **What body language signals do you think these birds are using?**



Body language

What does it look like when a bird DOESN'T want to engage with us, or needs a little extra space?

Many birds will angle their body away from the handler, posture themselves by lifting their wings out to display, or by crouching lower.

The feathers on the back of their neck and wings may lift or poof out, and some birds may clench their feet around what they're standing on to avoid being lifted.

Some will open their beak as a precursor to lunging, and some may bite their legs/feet before directing the bite to a person.

Birds who are uncomfortable or nervous may have slicked back, tight feathers.

Some examples of what to look for are shown on the following slides:

- **What body language signals do you think these birds are using?**

Body Language

In order to interpret some behaviors, we have to look at the environment, and the rest of the bird's body language before we can make a determination on if they want more or less interaction. Some examples are:

Eye pinning

Head bobbing

Raising crest feathers

Beak grinding/clicking

Tail fanning/flaring

Defining Trust

Dr. Susan Friedman describes trust as: "*a level of certainty that interaction will result in good outcomes, and so interaction increases. Trusting animals use their behavior to* ***confidently approach****, rather than escape, opportunities to interact with people. They not only accept invitations to interact with their trainers, trusting animals create interaction opportunities for their trainers as well.*"

To read more on trust from Dr. Friedman, click here!

How do you earn trust?

In training and behavior circles, the amount of trust you have with an animal is often described as a "**trust bank**". We pay in to that account when we create positive interactions with our animals; we withdraw from it with negative interactions.

If you give your bird a tasty treat, or a favorite enrichment item, you've paid in to your trust account!

If you force your bird to step up, or grab and restrain them suddenly, you've likely withdrawn from the account.

How big or how small a transaction is depends largely on context, our learner's preferences, and their learning history. It is important to note that completely emptying a trust bank can lead to significant behavior issues.

Reinforcement

Our learners decide what is reinforcing and what isn't, and reinforcement is not one-size-fits-all. The best way to tell if reinforcement is doing what we want it to do is simply asking if the target behavior is occurring **more frequently**. If it isn't, we may need to take a closer look.

Some birds find verbal praise, head scratches, certain treats, and even showers to be very valuable motivators. Others may not enjoy an individual reinforcer as much, it might not be reinforcing under certain circumstances, or it may not be as reinforcing if they get a large quantity of the same thing over and over and over! The bottom two rows of tree nuts in this picture can give a reference of ideal treat size, but larger treats can be nice for adding duration to behaviors!

Pick one of the common reinforcers listed above, and try to think of some circumstances it may be more *or* less appealing under!

Finding a Reinforcer

Look to see what your bird eats from their bowl first! Usually the first item pulled will be a favorite food, and can be reserved for training sessions.

The ABC's of Behavior

It's easy to take behavior personally, so in order to understand behavior it's best to break it down in to ABCs; this process can help us analyze and simplify parrot behavior. Start by defining the target behavior first!

- **Antecedent –** what sets the stage in the environment right before the behavior occurs?
- **Behavior –** the target behavior, described in observable, measurable terms.
- **Consequence –** what was the feedback for the behavior immediately after the behavior occurred?
- **Prediction –** Predict the future likelihood of the behavior if no changes are made to the antecedents or consequences.

Easy enough, right? This enables us to see what sets the stage for the behavior to occur, and the consequences that maintain it, so we're better prepared to change it. Keep in mind that we are often the ones providing the antecedents, and feedback/consequences. We'll do a practice run on the next slide!

Functional Assessment Practice

Jimmy the yellow nape amazon has started screaming repeatedly, and at a very high volume when his caregiver leaves the room; let's assess!

Antecedent: Jimmy's caregiver leaves the room

Behavior: Jimmy vocalizes

Consequence: His caregiver comes back in to the room (to see what's wrong, of course!)

Prediction: Jimmy will continue to vocalize when his caregiver leaves the room, to get him/her to return.

What may be reinforcing or maintaining the behavior?

Undesired Behavior

This section gives only very generalized suggestions. Because birds, people, and the environment are all different, these suggestions may or may not be helpful for each individual case; we urge all adopters to reach out to TGF's behavior team when experiencing unwanted behavior. Don't forget that TGF offers free, lifetime behavioral support for all of our adoptees!

Biting

The goal for biting is to arrange the environment and our own behavior, so that biting is unlikely to happen in the first place!

In the event a bite occurs, we recommend you stop what you're doing, say a quick "ouch!" Then gently and calmly return the bird to their cage.

Then consider; what was going in in the environment just prior to the bite? Was your hand pushing on their chest, did you miss other subtle body language signals, did something else startle the bird?

And most importantly.. what can you change to set up a more desirable outcome?

If biting continues, please contact TGF for help right away!

Undesired Vocalization

Undesired vocalization may last several minutes, and occur several times throughout the day. Behavior never happens without a reason, and when behavior continues, we know it's being reinforced! What feedback does the bird get for screaming?

It can also help to make sure your bird has plenty of projects of interest, such as toys they interact with, to keep busy. If you don't see improvement in the undesired vocalization **within a week**, we urge you to reach out to TGF for additional help!

Undesired Vocalization (Cont.)

Let's look at Jimmy, our learner on the functional assessment slide (slide 25) We predicted that Jimmy will continue to vocalize, because he's learned it means his caregiver will return to the room!

We can change this outcome by ignoring the unwanted vocalization, **and** simultaneously highly reinforcing a different, more desirable one when they offer it! This is an example of **Differential Reinforcement**; our bird learns that the unwanted behavior is no longer effective, *and* that other behaviors can get the same consequences- or ideally, even better ones!

Feather Destructive Behavior

Feather Destructive Behaviors (FDB) can start for a variety of reasons, including but not limited to chronic stress, poor diet, inadequate caging, and medical issues.

Whatever the reason for the onset of FDB, it tends to be difficult to stop, even if the suspected trigger is remedied, because grooming behaviors are reinforcing to perform! Additionally, the bird may experience discomfort when new feathers grow in.

Birds with FDB can still have full, happy lives, but we always want to try to figure out what is causing these behaviors and whether those causes have been fully addressed; if FDB worsens, please reach out to TGF for help!

Reproductive Behavior

Unwanted reproductive behaviors may include:

- Nesting
- Egg laying
- Pair bonding & targeted aggression among household members
- Medical issues including prolapse, overlaying, or egg binding

Intervention can include altering household member behavior, minimizing nesting materials, reinforcing alternative behaviors, enrichment, providing ceramic eggs, avoiding stroking the bird, and veterinary assistance; please reach out to TGF if you need help!

The Benefits of Training

Training is a valuable tool for us and our parrots! We can use it to build trust, and become associated with positive experiences. We can use it to enrich our parrots lives, and we can use it to change undesirable behavior. We can even use it to prepare our parrots for medication, veterinary procedures, or grooming. And of course, we can use it for fun! Parrots are famed for their intelligence, and training is one of the best ways we can put those big bird brains to work!

Teaching New Behaviors

Positive Reinforcement (R+) is the method of choice for training new behaviors; but there's a few different ways that we can use it! The most commonly used R+ training tools are:

- **Targeting:** training an animal to "touch" an object, like a target stick
- **Luring:** presenting a "lure" to prompt behavior
- **Shaping:** reinforcing successive approximations of a goal behavior
- **Capturing:** reinforcing behaviors as they occur naturally, or without prompting

Targeting

Targeting may seem innocuous; all the learner has to do is touch something! What's the point of that?

Targeting is actually very useful; the "touch" cue can be used to teach many behaviors to our parrots, like taking medication from a syringe, participating in a voluntary nail trim, stepping up, stationing (going to and staying at a certain spot) recall (flying to a handler) and more!

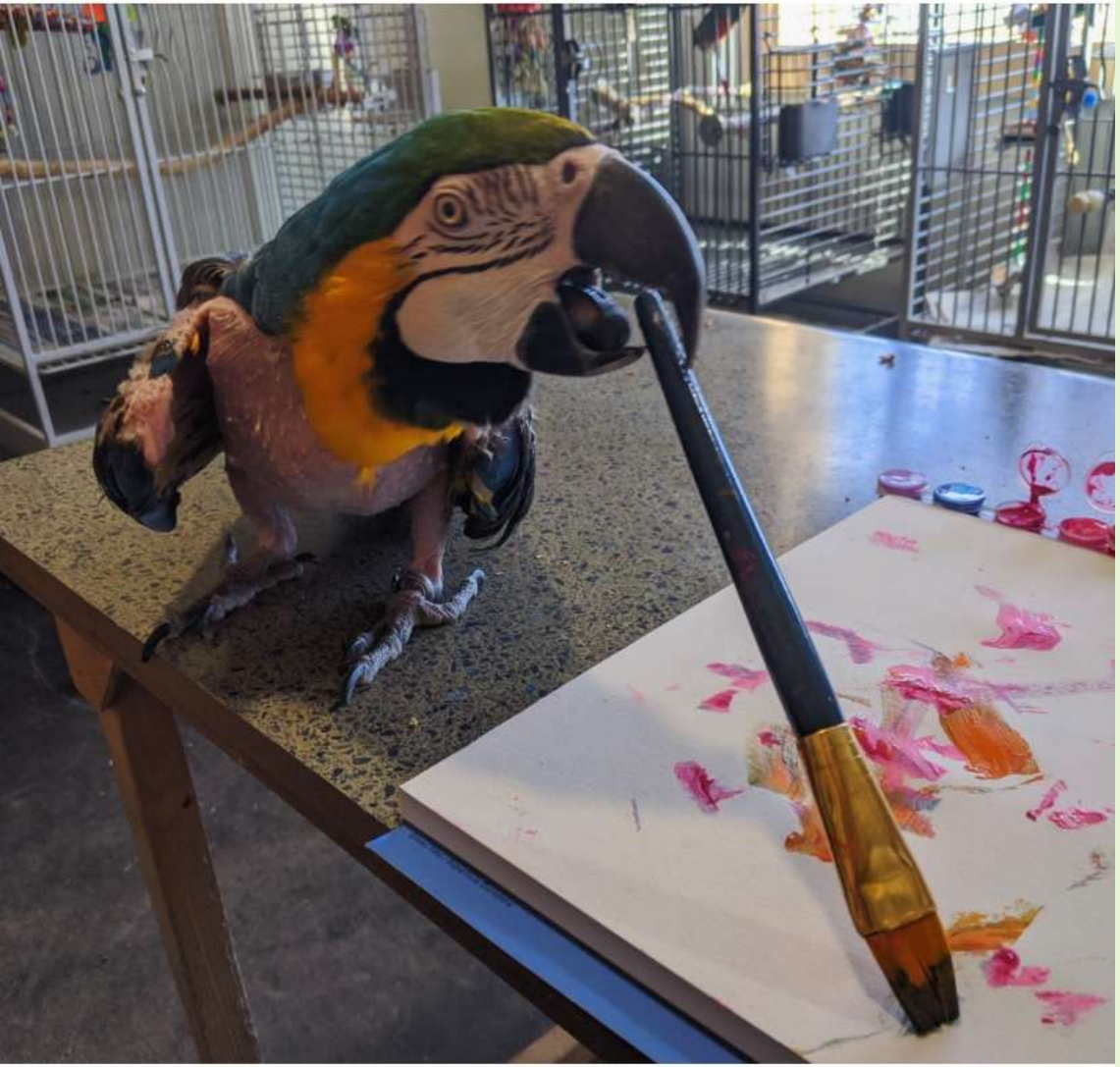
Target training is versatile, and best of all, can be done without the trainer making hands-on contact with the learner- this makes it a great tool for birds who haven't yet built trust with a certain trainer, birds who otherwise may not want to be handled, or trainers/caregivers who aren't familiar with an individual bird and prefer to wait before initiating hands-on contact.

Luring

Luring involves showing the learner something to get behavior started. For parrots, a food lure is commonly used. Luring is often used to train step ups, recall, or cage placement; Iggy the hyacinth is demonstrating luring being used to shape scale placement!

Luring is the subject of some debate; one of the main criticisms being that it's easy to inadvertently make the presentation of a lure the **cue** for a behavior, rather than a hand signal or verbal cue- meaning we have to use a lure as our cue every single time we want the behavior.

Lures should be faded and replaced with a different cue relatively quickly, typically when we've gotten *3* repetitions of the desired behavior.



Shaping

Shaping requires us to watch behavior closely, and reinforce small successive approximations that will help us get to our goal behavior.

All behavior has some amount of variation; every time your dog sits, there'll be a small difference from the last time he did it. He may sit a millisecond faster when cued, he may adjust how he sits to put a little more weight on one side; it might be subtle, but it's there! We just have to watch for it. Shaping requires a keen eye, and well timed reinforcement.

Tikka the blue and gold macaw has learned to move a paintbrush on a piece of paper after being reinforced for tiny approximations gradually- first towards picking up the brush, then holding it, then holding it and moving it, then holding it and moving it for longer amounts of time!

Capturing

Capturing is the process of reinforcing behavior that occurs without prompting; capturing helps us increase the likelihood of behaviors already in our animal's natural behavioral repertoire like blinking, yawning, or wing displays. For example, Dexter and Scruffy the green wing macaws have learned to display their wings through capturing!

Capturing can be a little difficult to use, and it's criticized for the lack of behavioral fallback, meaning if the behavior falls apart, you don't have much to rely on to get it to happen again; with shaping and targeting, you can go back to the last point the learner offered the desired behavior, and begin raising criteria more slowly from there. With capturing, you may have to wait a while before it happens again!

Picking a Training Tool

Each training tool has pros and cons, and what we use to train a new behavior depends on a few variables, like our learner's history, their current behavioral repertoire, our actual goal behavior, and our own skill level. More often than not, we may have to use 2 or more of our training tools to teach a behavior, or we may try one and find it isn't very effective for a particular learner or behavior and switch to something else.

The following hypotheticals are problem solving questions; look at these behaviors, and give some thought to how you would train them. There aren't right or wrong answers!

Winking on cue | stepping up | flying to a hand (recall) | taking medication from a syringe |

Wrapping Up!

Try to think of some behaviors you may want your future bird to learn, and let your adoption counselors know so they can guide you through the process of training! This presentation has covered some fundamentals of animal training, but it's important to practice applying it too!

We have credentialed trainers and behavior consultants on our team; while we do our best to prepare our adopters to manage issues with problematic behavior, we ask that you reach out to our team if you are struggling, rather than consulting the internet. It can be tough to discern between good and bad advice online, and delaying help can make it more difficult to manage problem behaviors expediently.

We hope this presentation has given you a head start on getting ideas for ways to interact with your future or current parrots! The very last slide has even more resources on parrot behavior and training, and we encourage you to check them out!

Supplementary Reading!

These articles are not required reading material, but are suggested for adopters who may want to learn more about training, or have questions on TGF policies. Click the titles to be taken to the article or website!

- What's Wrong With This Picture? Effectiveness Is Not Enough
- Why Animals Need Trainers Who Adhere to the Least Intrusive Principle:
- Companion Parrots: Answering Frequently Asked Questions
- To Fly Or Not To Fly… That Is The Question
- The Unexpected Benefits of Training
- IAABC position statement on least intrusive, minimally aversive (LIMA) methods
- IAABC position statement on dominance theory
- Behavior Works
- NEI Papers and Presentations